

To the FCC,
I am responding to the following question:

XXIII. Would the new high speed Access and In-House BPL equipment pose a higher risk of interference to licensed radio services than the traditional carrier current systems?

I believe that this service would be very much more destructive to licensed radio services in the HF radio spectrum as compared to traditional carrier current systems.

I am very much opposed to the expansion of HF RF communications services over power lines for "last mile", purposes. The core purpose of connecting data service points via any form of transmission line is to isolate them from an ability to either cause interference to another valid service, or for any other valid service to cause interference with them.

This proposed HF RF service does not belong in any way in an environment in which it can either reasonably escape into other valid HF services nor have other HF broadcast services reasonably enter into its domain. A single open wire transmission line or even medium voltage phased lines used for this proposed service violates every form of engineering protective covenant both ways in the HF spectrum area that I can visualize. That belief stems from nearly fifty years of experience as an amateur radio operator (Extra Class since the mid-50's), a First Class Phone FCC license, First Class Telegraph FCC license and finally, as a Narte Senior Telecommunications Engineer.

Looking back over nearly 5 decades of life at this, I think by far the most obnoxious problems I've faced were dealing with interference of one form or another between services. I believe this service will create major problems both to and from this proposed service with this proposed technology. I don't think for one minute that the level of RF radiation proposed as "acceptable" at the distances proposed from a power line is acceptable at all. It isn't, as I've seen all this for decades.

HF services travel world wide, far more easily than most people suspect at frequencies above the 3 Mhz mark. Too often, in the case of ionospheric reflected RF service, the difference between success and failure, actually life and death in certain cases, is measured in picking out the required data in terms of only a few microvolts or so per meter just above the noise, from what's already there today as it is. And don't for one minute think power lines won't both radiate this stuff ... and ... pick up other stuff inbound as well. You think 802.11 is bad now? Just wait for what neat stuff one can concoct to poke into this game via HF at this! And the last thing we need in an increasing age of terroristic threat, is a simple open antenna way to couple nasties into core technologies, which I believe this could open up.

Remember, just because you propound one can absolutely guarantee an adequate level from point "A" to point "B" along the wire, or fifty feet from it perhaps, service levels you contemplate adequate for this service are perhaps orders of magnitude above what existing radiant mode operations

must work with now, day in and day out, on these same frequencies even in the same building with them. Even very low levels of energy travel huge distances easily and tracing them or dealing with them as skip enabled issues will be an unholy nightmare. This isn't just a ham radio issue either. It permeates all kinds of intelligence service work for many other existing services as well.

However, the best thought line I can give you does come from the amateur service! Consider the gent who asked in the Internet DX Usegroup recently:

Esco asked, "How far can I talk on one watt? Could I talk to people in Russia from Massachusetts?"

I answered the following with the following:

Yes.

And if you REALLY want to experience the wonder of it all, wait until one night about 2:00 am in the morning under good conditions; you work Australia on say 40 meter CW with only ONE WATT of power! Yes, it can be done!

Then, go out in the back yard and take a five cell flashlight, which is about that same one watt of power. Shine it up in the sky. Look up there at the beam and see how far you can see it go!

Then think. That same one watt from your little rig is going up in the sky, bouncing off the ionosphere back down to earth, bouncing back up in the sky, down to earth. It's going up and down like that five or six times to get there to Australia for your little one watt of power!

And if a MILLION people in Australia all had ham radio receivers, they could ALL hear you at the same time! Or Russia, or China or wherever given halfway decent conditions.

Then take a good look at your little rig and flashlight again. Contemplate on all you are really seeing and what might be responsible for allowing that to happen for you.

Then really contemplate what Samuel Morse sent, when he sent that first code from the telegraph sounder that has escaped so far from those two little copper wires so long ago, "What hath God wrought?"

Open the real book of life that ham radio will let you see and take a closer look. It's a lifetime worth of wonder.

W5WQN

Considering all the HF uses we need for serious skip related work we do today for various services and the security needs we face for HF access;

You want to start down THIS road for economics sake?

This is a bad move. It's a very, very bad move, in my humble opinion.

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--> Sleep well; OS2's still awake! ;)

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